

Highlights about *Haemaphysalis longicornis* (the longhorned tick), June 2018

Haemaphysalis longicornis are three-host hard ticks originally from northeast Asia, where they survive harsh winters. The invasive form is a parthenogenetic tick, in that females do not need males to lay fertile eggs. This tick can create explosive, multi-generational populations and animals may die from anemia/exsanguination. It has been demonstrated that they can transmit a wide variety of pathogens (numerous bacteria, viruses, and protozoa). These ticks are susceptible to a wide range of acaricides.

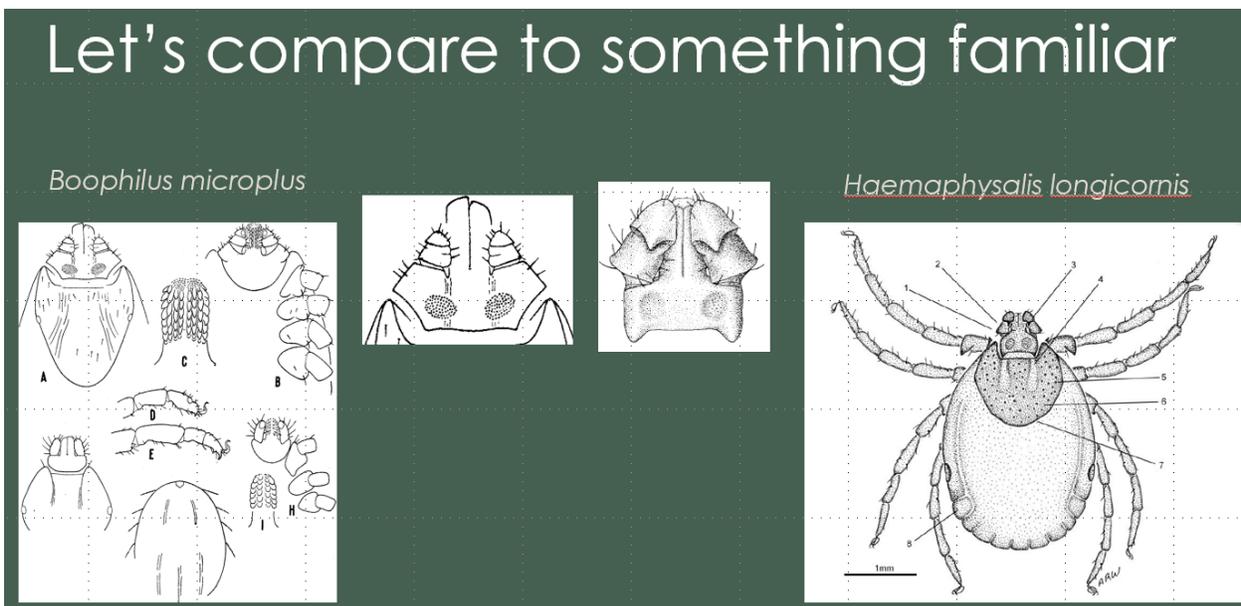
Hosts: Primarily cattle, but also: sheep, dogs, humans, donkeys, hedgehogs, horses, pigs, ducks, turkeys, chickens, mynas, magpies, pheasants, budgerigar, thrush, skylark, sparrows, rabbits, goats, badgers, cats, deer, bears, foxes, raccoons, chipmunks, rats, mice, ferrets, weasels, etc. (NOTE: Use of alternate hosts can translocate these ticks throughout the geography)

Life Cycle (mild climate):

- Summer—Females lay 800-2000 eggs
- Late Summer/Early Fall—Larvae hatch and crawl to tips of grasses; Feed on host 3-5 days; Drop to molt to nymphs
- Overwinter—Diapause (a period of suspended development) as nymphs (NOTE: Some populations in warmer climates do not diapause at all)
- Spring—Nymphs emerge; Feed 5-7 days; Drop and molt to adults
- Mid-Summer—Adults find host and feed 7-14 days

Longhorned ticks are very small and can easily go unnoticed. An abundant infestation may be present because of the prolific life cycle. Identification is challenging—will need presumptive ID at TAHC’s AUS-LAB and confirmation at NVSL-Entomology:

The key characteristic for all *Haemaphysalis* is that the second segment of the palps projects beyond the lateral margin of the basis capituli (resembling a “bell”).

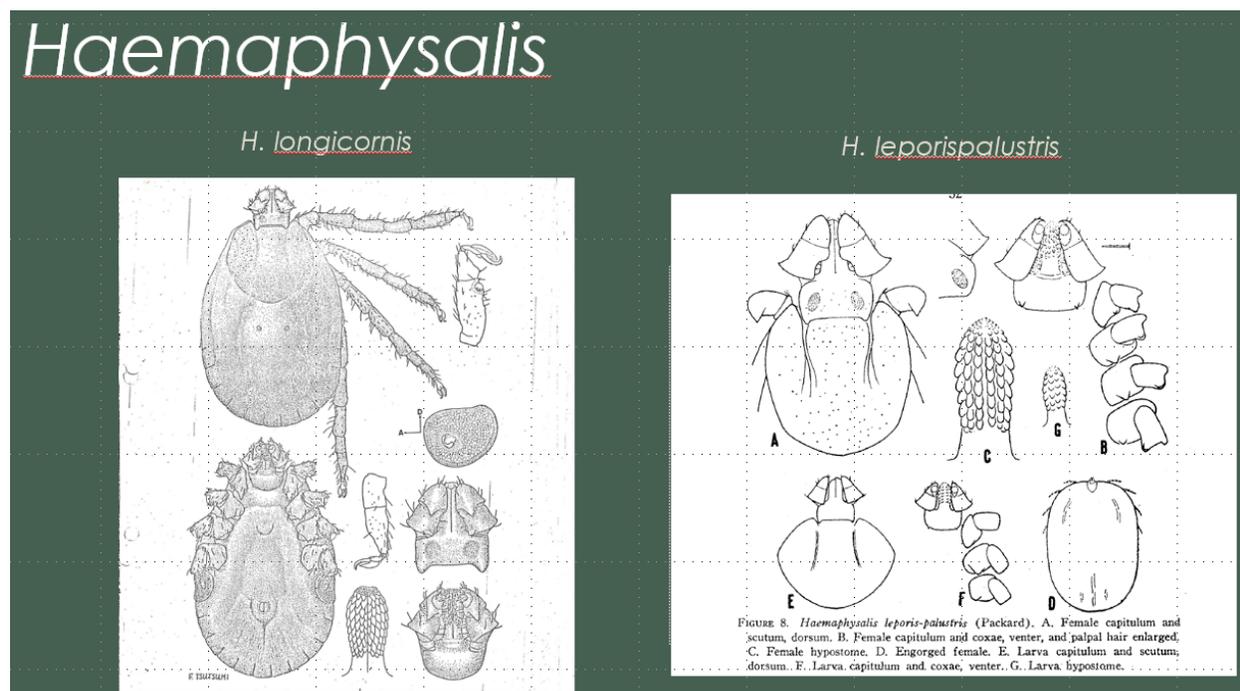


**B. microplus* images from Cooley, RA. 1946. The Genera *Boophilus*, *Rhipicephalus*, and *Haemaphysalis* (Ixodidae) of the New World, NIH Bulletin No. 187, USPHS.

***H. longicornis* images from Barker, SC, and Walker, AR. 2014. Ticks of Australia, Zootaxa 3816, Magnolia Press.

Haemaphysalis is a huge genus globally but usually only encountered in Texas as *H. leporispalustris* (the rabbit tick). In the adult females, the two species (*H. longicornis* vs *H. leporispalustris*) show differences, particularly in structures on the capitulum:

Characteristic	<i>H. longicornis</i>	<i>H. leporispalustris</i>
Dental formula	5/5	3/3
Ventral spur on palpal article III	Moderately long and pointy ("longhorns")	Short and blunt
Dorsal spur on article III	Present	Absent
Ventral cornua on basis capituli	Absent	Present



**H. longicornis* images from Barker, SC, and Walker, AR. 2014. Ticks of Australia, Zootaxa 3816, Magnolia Press.
 ***H. leporispalustris* images from Cooley, RA. 1946. The Genera *Boophilus*, *Rhipicephalus*, and *Haemaphysalis* (Ixodidae) of the New World, NIH Bulletin No. 187, USPHS.